

STATE OF SOUTH CAROLINA

(Caption of Case)

In Re: South Carolina Electric & Gas Company's  
Update of Construction Progress and Request for  
Updates and Revisions to Schedules Related to the  
Construction of a Nuclear Base Load Generating  
Facility at Jenkinsville, South Carolina

BEFORE THE  
PUBLIC SERVICE COMMISSION  
OF SOUTH CAROLINA

COVER SHEET

DOCKET

NUMBER: 2009 - 293 - E

(Please type or print)

Submitted by: Robert Guild  
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**DOCKETING INFORMATION** (Check all that apply)

☐ Emergency Relief demanded in petition ☐ Request for item to be placed on Commission's Agenda expeditiously

☐ Other: \_\_\_\_\_

INDUSTRY (Check one)	NATURE OF ACTION (Check all that apply)		
<input checked="" type="checkbox"/> Electric	<input type="checkbox"/> Affidavit	<input type="checkbox"/> Letter	<input type="checkbox"/> Request
<input type="checkbox"/> Electric/Gas	<input type="checkbox"/> Agreement	<input type="checkbox"/> Memorandum	<input type="checkbox"/> Request for Certificatio
<input type="checkbox"/> Electric/Telecommunications	<input type="checkbox"/> Answer	<input type="checkbox"/> Motion	<input type="checkbox"/> Request for Investigator
<input type="checkbox"/> Electric/Water	<input type="checkbox"/> Appellate Review	<input type="checkbox"/> Objection	<input type="checkbox"/> Resale Agreement
<input type="checkbox"/> Electric/Water/Telecom.	<input type="checkbox"/> Application	<input type="checkbox"/> Petition	<input type="checkbox"/> Resale Amendment
<input type="checkbox"/> Electric/Water/Sewer	<input checked="" type="checkbox"/> Brief	<input type="checkbox"/> Petition for Reconsideration	<input type="checkbox"/> Reservation Letter
<input type="checkbox"/> Gas	<input type="checkbox"/> Certificate	<input type="checkbox"/> Petition for Rulemaking	<input type="checkbox"/> Response
<input type="checkbox"/> Railroad	<input type="checkbox"/> Comments	<input type="checkbox"/> Petition for Rule to Show Cause	<input type="checkbox"/> Response to Discovery
<input type="checkbox"/> Sewer	<input type="checkbox"/> Complaint	<input type="checkbox"/> Petition to Intervene	<input type="checkbox"/> Return to Petition
<input type="checkbox"/> Telecommunications	<input type="checkbox"/> Consent Order	<input type="checkbox"/> Petition to Intervene Out of Time	<input type="checkbox"/> Stipulation
<input type="checkbox"/> Transportation	<input type="checkbox"/> Discovery	<input type="checkbox"/> Prefiled Testimony	<input type="checkbox"/> Subpoena
<input type="checkbox"/> Water	<input type="checkbox"/> Exhibit	<input type="checkbox"/> Promotion	<input type="checkbox"/> Tariff
<input type="checkbox"/> Water/Sewer	<input type="checkbox"/> Expedited Consideration	<input type="checkbox"/> Proposed Order	<input type="checkbox"/> Other:
<input type="checkbox"/> Administrative Matter	<input type="checkbox"/> Interconnection Agreement	<input type="checkbox"/> Protest	
<input type="checkbox"/> Other:	<input type="checkbox"/> Interconnection Amendment	<input type="checkbox"/> Publisher's Affidavit	

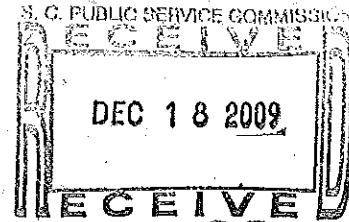
# ROBERT GUILD

Attorney at Law

314 Pall Mall, • Columbia, South Carolina 29201 • 803-252-1419

December 16, 2009

Mr. Charles Terreni  
Chief Clerk  
Public Service Commission of South Carolina  
Synergy business Park, Saluda Building  
101 Executive Center Drive  
Columbia, SC 29210



In Re: South Carolina Electric & Gas Company's Update of Construction  
Progress and Request for Updates and Revisions to Schedules Related  
to the Construction of a nuclear Base Load Generating Facility  
at Jenkinsville, South Carolina  
Docket No. 2009-293-E

Dear Mr. Terreni:

Enclosed please find for filing and consideration the Brief of Intervenor Friends of  
the Earth, together with Certificate of Service reflecting service upon all parties of  
record.

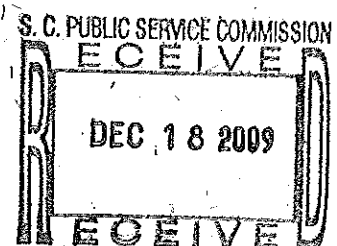
With kind regards I am

Sincerely,

A handwritten signature in dark ink, appearing to read "Robert Guild".

Robert Guild

Encl's  
CC: All Parties



220876

BEFORE  
THE PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA  
DOCKET NO. 2009-293-E

In Re: South Carolina Electric & Gas )  
Company's Update of Construction Progress )  
and Request for Updates and Revisions to )  
Schedules Related to the Construction of a )  
Nuclear Base Load Generating Facility )  
at Jenkinsville, South Carolina )

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BRIEF OF INTERVENOR FRIENDS OF THE EARTH

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Pursuant to the Base Load Review Act, S.C. Code Ann. Sections 58-33-210, et seq., Intervenor Friends of the Earth ("FoE"), on behalf of its members who will be adversely affected, hereby submits this Brief urging the Commission to deny the Request by South Carolina Electric & Gas Company ("SCE&G") for "Updates and Revisions to Schedules Related to the Construction of a Nuclear Base Load Generating Facility at Jenkinsville, South Carolina."

FoE contends that the record herein reflects compelling evidence of imprudence on the part of SCE&G with respect to the mounting delays in the design approval and likely construction schedule of the untested, unproven proposed AP 1000 nuclear power plant design; an implausible and wholly unpersuasive rationale for slipping or

delaying the scheduled completion of some 41 construction milestones by the Company; and an outrageously unjustified request to 'reset' the construction contingency schedule by ten months or more for 13 milestones and by 17 months for an additional 4, thereby thoroughly undermining any meaningful accountability measures essential to protect ratepayers from unreasonable and imprudent costs associated with the failure to complete this project on schedule and on budget. Holding SCE&G accountable for the cost and schedule assurances upon which this Commission's initial approval of the project was based depends upon the denial of this schedule delay request. The request to approve schedule updates and revisions should be denied pursuant to S.C. Code Ann. § 58-33-270(E), where such proposed changes here are solely "necessitated by the imprudence of the Company." Order No. 2009-104(A), R. p. 96.

SCE&G witness Stephen A. Byrne asserts that (T)he principal reason for extending milestones has been a determination that the procurement, fabrication, or delivery of major pieces of equipment could be scheduled later than originally anticipated. Pushing back the scheduled delivery dates related to these items is beneficial because doing so reduces the need to store equipment on site, which reduces the risk of damage to the equipment or deterioration from exposure to the elements while being stored on site; and provides better management of the physical site since less equipment is being stored on it. None of the milestones are extended beyond 18 months or accelerated more than 24 months."

Byrne, Prefiled Direct Testimony, p. 10, lines 4-13.

Such an explanation is wholly unpersuasive and utterly fails to justify why

SCE&G did not prudently arrive at precisely this same judgement regarding the delivery of major plant components when it determined the original proposed and approved milestone schedule. Failing to make that judgement was either imprudent then or is imprudent now. Having approved the original schedule as prudent, over FoE's objections, this Commission must conclude that such schedule delay proposed now are solely "necessitated by the imprudence of the Company." Order No. 2009-104(A), R. p. 96, and, therefore must be rejected.

Moreover, while "(N)one of the milestones are extended beyond 18 months," Byrne, Id., some 13 milestones are to be delayed by ten months or more and an additional 4 milestones are proposed to be extended by 17 months- only a single month shy of the maximum 18 month schedule contingency. SCE&G Ex. SAB-1, Appendix 1, Chart B, H. Ex. 2. Slipping the construction schedule milestones as proposed- during this very first year of plant construction- threatens to begin a cycle of schedule contingency 'resetting'- by up to 17 months in a number of critical instances- making the schedule contingency limit meaningless as a prudence standard against which the Company may be held accountable.

In its Brief to the South Carolina Supreme Court, filed in response to FoE's appeal of the Commission's initial Base Load Order approving this project and its associated schedule and budget, Order No. 2009-104(A), SCE&G concludes its rhapsodic rendition of the Base Load Review Act's virtues with this finale:

If the utility meets its price and schedule commitments, and otherwise constructs the plant as promised, then the capital provided to build the plant can be recovered through rates.

Brief of Respondent SCE&G, p. 6. Approval of this request to delay and substantially reset the previously approved construction schedule will effectively relieve the Company of any meaningful "price and schedule commitments" essential to protect ratepayers from the inevitable imprudent and unreasonable costs of this project.

The Base Load Review Act requires the Company, here, to shoulder the ultimate burden of proof of the prudence of the schedule decisions and associated costs at issue here:

in cases where this statute allows a party to challenge the prudence of any transaction, cost, or decision of the utility, that party shall be required to make a prima facie case establishing imprudence, and thereafter the burden of proof shall shift to the utility to demonstrate the prudence of the transaction cost, or decision by a preponderance of the evidence.

S.C. Code Ann. § 58-33-240(D). Again, in its Brief before the Supreme Court, SCE&G characterizes its burden of proof in this schedule delay proceeding:

These provisions merely codify the standard that has traditionally been applied in Commission cases. See, Hamm v. Public Serv. Comm'n, 309 S.C. 282, 422 S. E.2d 110 (1992) (noting that the burden of production is on the Commission or other contesting party to demonstrate a tenable basis for raising the specter of imprudence related to a utility's expenses and thereafter the utility bears the ultimate burden to show reasonableness.).

Brief of Respondent SCE&G, p. 14, fn 7. Thus, having raised far more than the mere "specter of imprudence" SCE&G admits is initially required of FoE, it falls to the Company to shoulder the burden of proving the prudence and reasonableness of plant

construction decisions and proposed schedule delays it seeks approval for here.

SCE&G witness Byrne acknowledges that the NRC licensing schedule for the unproven- and unapproved- Westinghouse AP1000 nuclear plant design now no longer will allow completion of the V.C. Summer plant on the current promised schedule:

"The current NRC schedule shows the NRC concluding their review of Revision 17 in December of 2010, with an August 2011 final rulemaking. This final rulemaking is a prerequisite for the license approval of Units 2 and 3, and does not support SCE&G's license approval date of July 2011." Byrne, Tr. 42, lines 3-9. "SCE&G continues to express to Westinghouse its absolute expectation that these matters be dealt with in a timely way that does not result in delays of the issuance of the license for the units." Byrne, Tr. 42, lines 12-16. These are idle assurances indeed in light of the scale of the actual AP 1000 design uncertainties demonstrated by FoE on this record, yet undisclosed and unjustified by either SCE&G. or the Office of Regulatory Staff (ORS).

ORS project watchdog consultant Mark W. Crisp does acknowledge "significant" concerns regarding "(T)he implications identified by the NRC of WEC's (Westinghouse's) failure to meet certain filing deadlines" to "provide the necessary design information in a timely manner and as a result has further impacted the (NRC) review schedule" for the AP 1000 plant design, as disclosed in an August 27, 2009, NRC letter to Westinghouse. Crisp, Prefiled Direct Testimony, pp. 7, line 22- 8, line 22. Yet, neither SCE&G nor ORS disclosed to the Commission the full extent of the failures by SCE&G's project contractor Westinghouse or the dire implications of such failures for the schedule and cost for the proposed Summer nuclear plant.

Several weeks before the November 4, 2009, hearing testimony of SCE&G and ORS, unequivocally endorsing the prudence of the project schedule delays, the Nuclear Regulatory Commission announced on October 15, 2009, that it “has informed Westinghouse that the company has not demonstrated that certain components of the revised AP1000 shield building can withstand design basis loads,” and that modifications to the design and a design safety demonstration must be provided before the NRC can “begin” to determine if the critical reactor shield building meets NRC safety standards. “This is a situation where fundamental engineering standards will have to be met before we can begin determining whether the shield building meets the agency’s requirements.” FoE Ex. 1, H. Ex. 3. The impact of this design flaw on the NRC’s overall AP1000 certification- and therefore the V.C. Summer plant completion and licensing- could not then be determined. Id.

In its formal notification to Westinghouse of this determination, the NRC specifically faulted the “design of the shield building tension ring girder, which anchors the shield building roof to the wall . . .” FoE Ex. 2, H. Ex. 4. The NRC further informed Westinghouse that it “considers its review of the shield building, as proposed, to be complete,” Id., reflecting its formal rejection of the adequacy of the proposed facility design. Despite this clear statement to the contrary, SCE&G’s witness Byrne insists that the AP1000 shield building design had not been rejected by the NRC, and that the dispute related only to the building’s vulnerability to aircraft impacts. Byrne, Tr. p. 49, lines 13-21. In the NRC staff’s briefing to its commissioners on October 16, 2009, the staff explained that Westinghouse had failed to provide the NRC with “the full AP1000 design methodology that the NRC staff was expecting,” and that outstanding



unresolved AP1000 design issues posed "high project schedule risks . ." including risks to the Summer plant schedule which "is expected to change" as a result of these delayed design reviews. FoE Ex. 3, H. Ex. 5. No such dire implications for the Summer plant schedule were disclosed by SCE&G or ORS to the Commission.

The NRC Chairman, Gregory B. Jaczko, responded to a congressional inquiry regarding NRC licensing status by noting that "meeting the schedules is becoming increasingly dependent on the ability of the COL (combined operating license) applicants to provide complete and timely information to resolve NRC requests for information, and on the ability of the applicants for the design modifications (Westinghouse) (incorporated by reference in those COL applications) to support the design certification review schedules." FoE Ex. 4, H. Ex. 6. SCE&G's choice of the unproven AP1000 design and reliance on the unresponsive and unreliable design contractor Westinghouse is demonstrably imprudent.

In the August 27, 2009, NRC letter to Westinghouse- which ORS witness Crisp did acknowledge, the NRC roundly condemned Westinghouse's delinquent performance which has accounted for the licensing schedule delays: "Westinghouse has not met its commitments to provide the necessary design information in a timely manner and as a result has further impacted the review schedule. FoE Ex. 5, H. Ex. 7. While acknowledging this letter, ORS witness Crisp failed to disclose to the Commission the dire implications of the NRC's critical indictment of SCE&G's contractor Westinghouse.

ORS witness Crisp was unaware of the AP1000 shield building design problems and Westinghouse's design verification failures until recently this fall despite

documented problems extending back to the early spring. Crisp Tr. p. 271. ORS witness Crisp could still offer no example of an imprudent act or practice by SCE&G or Westinghouse warranting rejection of a schedule or cost change under the Base Load Review Act, Crisp Tr. p. 277, lines 2-24, confirming the toothlessness of the ratepayers' designated watchdog. Mr. Crisp was even less assertive in his standard for scrutinizing the prudence of SCE&G's contractor Westinghouse:

**Q** Yes. Is there any circumstance where this Commission should not approve a schedule change based on failure by Westinghouse to support this plant design?

**A** At this point in time, it is inappropriate for me to speculate as to any activity that Westinghouse would have to undergo in order to establish an imprudent decision. There is no -- there are no signs, there's no indication that Westinghouse has breached any type of a responsibility in their contract, in their schedule, or in their budget. So for me to stand up here and to attempt to identify some activity that could be -- would be a totally off-the-wall decision is totally inappropriate for me.

Crisp, Tr. p. 269, lines 8-20.

ORS witness Crisp agrees that absent approval of the SCE&G schedule extensions some construction activities may exceed the 18 month schedule contingency; Crisp, Tr. p. 252, lines 10-12, and that extending the schedule as ORS recommends- some milestones by as much as 17 months- will reset or recalibrate the 18 month contingency schedule for those milestones- in effect adding as much as 35 months to the approved schedule.

**Q** Well, let's just be clear, as the watchdog for the ratepayers here, if the Commission does what ORS and the company is asking them to do, you are essentially

recalibrating the schedule and starting over again, and so 18 months will begin to run not from the old schedule where they're already 17 months into it, it will begin to run from the new schedule, right? That's your recommendation?

A That's correct.

Crisp, Tr. p. 253, lines 2-10.

In response to questioning by Chairman Fleming, SCE&G witness Alan D. Torres characterized Westinghouse's AP1000 project challenges as "somewhat overwhelming." Torres, Tr. p. 199, line 22. In addition "resources" may have been another reason for their problems. Torres, Tr. p. 200,, lines 6-7. As Chairman Fleming observed, however, effectively meeting such challenges is precisely Westinghouse's business in undertaking the AP1000 project. Tr. p. 200, line 21.

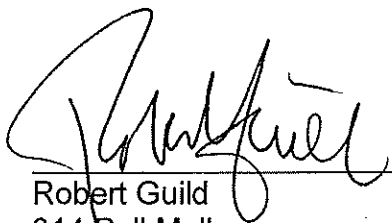
The seriousness of Westinghouse's failures to properly execute the AP1000 project is underscored by their dismissal of their senior vice president, Dan Lipman, in charge of their new nuclear program and the AP1000 project. This management shake-up at Westinghouse was only disclosed to the Commission by SCE&G witness Byrne in response to questions by FoE on cross-examination. Byrne, Tr. pp. 101, lines 3- 103, line 24.

"Imprudent" is defined by the Merriam-Webster dictionary as, "not prudent : lacking discretion, wisdom, or good judgment <an imprudent investor>."

<http://www.merriam-webster.com/dictionary/imprudent>, last visited 12/16/09. Clearly, the evidence in this record demonstrates that the reliance on Westinghouse to support the unproven AP1000 nuclear reactor design and the proposed V.C. Summer project schedule delays meet the definition of imprudence.

## CONCLUSION

In light of the evidence of poor judgement, unwise decision-making and the abuse of discretion reflected in the decisions of SCE&G and their AP1000 nuclear plant contractor Westinghouse demonstrated on this record; and the failure by SCE&G to carry its burden of proof of the prudence and reasonableness of the schedule delays and extensions proposed here, the Commission should deny the Request by South Carolina Electric & Gas Company for "Updates and Revisions to Schedules Related to the Construction of a Nuclear Base Load Generating Facility at Jenkinsville, South Carolina."

A handwritten signature in black ink, appearing to read "Robert Guild", written over a horizontal line.

Robert Guild  
314 Pall Mall  
Columbia, South Carolina 29201  
(803) 252 1419  
ATTORNEY FOR PETITIONER  
FRIENDS OF THE EARTH

December 16, 2009

BEFORE  
THE PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA  
DOCKET NO. 2009-293-E

In Re: South Carolina Electric & Gas )  
Company's Update of Construction Progress )  
and Request for Updates and Revisions to )  
Schedules Related to the Construction of a ) CERTIFICATE OF SERVICE  
Nuclear Base Load Generating Facility )  
at Jenkinsville, South Carolina )

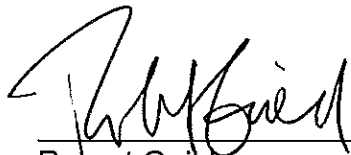
I hereby certify that on this date I served the above BRIEF OF INTERVENOR  
FRIENDS OF THE EARTH by placing copies of same in the United States Mail, first-  
class postage prepaid, addressed to:

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December 16, 2009

  
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